APPLICANT(S): ZIV, Ilan, et al.
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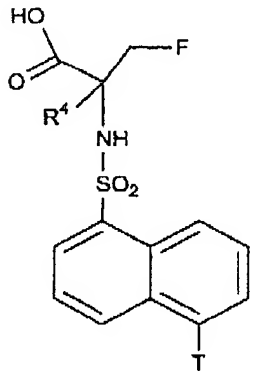
## AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

Claims 1-47 (Cancelled)

48. (Currently Amended) A compound ~~according to Claim 47~~, represented by the structure as set forth in formula (VI):

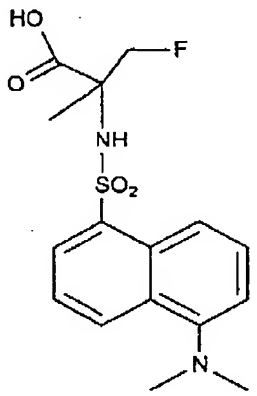



(VI)

wherein T is ~~as defined in Claim 47~~ OH, -O-$CH_3$, -O-$(CH_2)_yCH_3$, $NH_2$, $N(CH_3)_2$, $N[(CH_2)_3CH_3]_2$, $-N(CH_3)[(CH_2)_2CH_3]$, $-N(CH_3)CH_2CH_3$ or $-N(CH_3)[(CH_2)_3CH_3]$; wherein y stands for an integer of 1, 2, or 3;

T and $R^4$ is hydrogen or a $C_1$, $C_2$, $C_3$, $C_4$, $C_5$ or $C_6$ straight or branched alkyl, and wherein the F atom is $^{18}F$ or $^{19}F$ or ~~mixtures of fluorine isotopes~~ a mixture of fluorine isotopes.

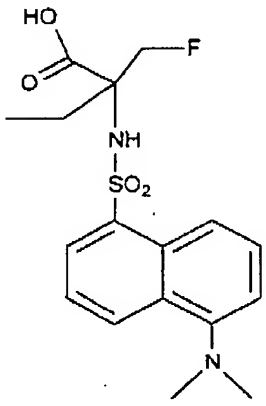
49. (Currently Amended) A compound according to Claim ~~47~~ 48, represented by the structure as set forth in formula (VII):




(VII)

wherein the F atom is $^{18}F$ or $^{19}F$ or a mixture of fluorine isotopes.

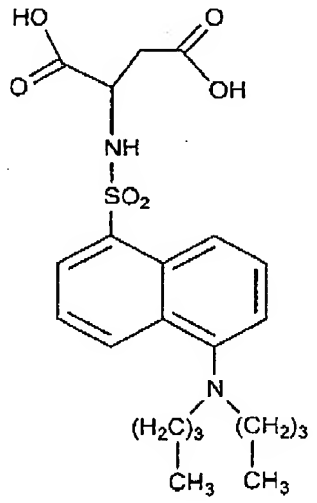
50. (Currently Amended) A compound according to Claim ~~47~~ 48, represented by the structure as set forth in formula (VIII):




(VIII)

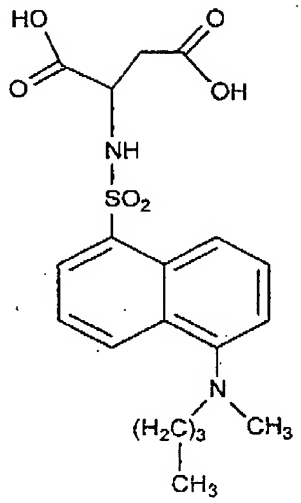
wherein the F atom is $^{18}F$ or $^{19}F$ or ~~mixtures of fluorine~~ ~~isotope~~ a mixture of fluorine isotopes.

51. (Currently Amended) A compound ~~according to Claim 47~~ represented by the structure as set forth in formula (IX):



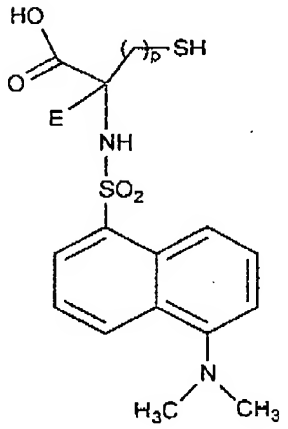

(IX)

52. (Currently Amended) A compound ~~according to Claim 47,~~ represented by the structure as set forth in formula (X):



(X)

53. (Currently Amended) A compound ~~according to Claim 47,~~ represented by the structure as set forth in formula (XI):



(XI)

wherein E is $C_1$, $C_2$, $C_3$ or $C_4$ alkyl; $C_1$, $C_2$, $C_3$ or $C_4$ fluoroalkyl; or $C_1$, $C_2$, $C_3$ or $C_4$ hydroxyalkyl; p stands for an integer of 1 or 2.

54. (Previously presented) A compound according to Claim 53, wherein p is 1.

55 - 67 (Cancelled)

68. (New) A method for selective targeting of a chemical compound to a cell undergoing perturbation of the normal organization of its plasma membrane (PNOM-cell) present in a cell population, comprising the step of contacting the cell population with a perturbed membrane binding compound (PMBC), being a chemical compound represented by the structure set forth in formula (VIII) of Claim 50, thereby selectively targeting the chemical compound to the PNOM-cells within the cell population.

69. (New) A method of detecting the presence of PNOM-cells within a cell population selected from: a cell culture, a tissue in a human patient and a tissue in an animal, comprising the steps of:

(i) administrating the cell population with a PMBC, or a conjugate comprising said PMBC and a marker for imaging, wherein said PMBC is represented by the structure set forth in formula (VIII) of Claim 50; and

(ii) determining the amount of PMBC bound to cells in the cell population wherein a bound amount which is significantly higher than a control indicates the presence of PNOM-cells within the cell population.

70. (New) A method according to Claim 68, wherein the PNOM-cell is a cell undergoing a death process, an apoptotic cell or an activated platelet.

71. (New) A method for selective targeting of a PNOM-cell present in a cell population, comprising the step of:

(i) contacting the cell population with a PMBC, or a conjugate comprising said PMBC and a marker for imaging, wherein said PMBC is represented by the structure set forth in formula (VIII) of Claim 50; and

(ii) determining the amount of PMBC bound to cells in said cell population, wherein a bound amount which is significantly higher than a control indicates the presence of said PNOM-cells within the cell population.